Flood Protection Corridor Program

Project Name: Vierra Unit Restoration

Project Location: San Joaquin River National Wildlife Refuge

Section 497.7. Application for Grant Funding

Applicants for grant funding under the program shall file a complete application with the Department on a form prescribed by the Department. The Department shall not revise the application form during any period in which project proposals are being solicited. A complete application shall contain at least the following information:

(a) A description of the proposed project including:

(1) A statement of the problem being addressed

Background: The January 1997 flood breached levees all around the project area. The owners of the 3166 flooded acres on the west side of the San Joaquin River sold their property to the US Fish and Wildlife Service and the Natural Resources Conservation Service purchased flood easements on these acres. The US Army Corps of Engineers entered the project by designating the 3166 acres a Non-Structural Flood Control Protection Program with the intention of breaching their Project levees in the near future. Two CALFED grants to the Refuge have documented biological resources and funded the restoration of 800 acres of riparian woodland within the 3166 acres.

This proposal seeks funding for the next phase of the project: the restoration of 511 additional acres within the 3166 acre ACE project. The southern 250 acres of the project area is protected by an ACE Project levee. The remaining 261 acres were protected by private levees. Today, the ACE levee has been repaired and the private levees remain open.

The biological problem being addressed is that the abandoned agricultural fields support non-native weeds with low habitat value to the native wildlife, and with low areas capable of fish entrapment.

The flood-control problem being addressed is that the Refuge may be required to close the levees due to fish-stranding problems on the former floodplain agricultural fields. Closing the levees will result in the pre-1997 condition with no floodplain for the river to move into during high flows.

(2) A discussion of the ways that the project addresses the problem and satisfies the purposes described in Section 497.5(a)(2).

The proposed project will restore the 511 acres to native vegetation in the form of riparian woodlands and fish-friendly wetlands. No property will be acquired under this proposal. The Vierra Unit is owned by the US Fish & Wildlife Service as part of the San Joaquin River National Wildlife Refuge. The proposal fits with Section 497.5 (a)(2)(d).

Funding for this proposal will involve:

1. Evaluation of existing levee breaches (from 1997) in Area A and conform them to the adjacent floodplain elevation based upon topography and hydraulic considerations.
2. Modify low areas (wetlands) in Area B (200 acres) so that it will function as wildlife habitat and allow for fish passage off the floodplain as flood waters recede.
3. Plant (restore) about 311 acres of riparian vegetation that will be designed as habitat for two listed species: the Endangered Riparian Brush Rabbit (RBR) and theThreatened Valley Elderberry Longhorn Beetle (VELB).

(3) A description of the project approach

An engineering evaluation of the existing topography of the project area and the configuration of the existing breaches will be carried out to determine how the breaches should be constructed to minimize erosion and to allow for water circulation over the property. Restoration of wetlands will require the installation of a new pump with fish screen. The wetland area will be graded and water control structures installed in a manner that will minimize the possibility for entrapping fish during flood flow recession. Riparian woodland will be restored using standard methods developed by Sacramento River Partners. The planting design, that is, species, density, and pattern – will accommodate the habitat needs of important riparian wildlife including several species of riparian obligate birds, the listed Riparian Brush Rabbit and Valley Elderberry Longhorn Beetle.

(4) A discussion of the expected outcome and benefits of the project

The outcome of this project will ensure that the 511 acre floodplain will function efficiently to accept flood flows. The flood control benefits will be the attenuation of flood effects both downstream and upstream when flows exceed 16,000 cfs (compared to the current situation) because the water will spread across the 511 acre floodplain. In addition, the project area will trap sediments from the floodflows. The entire project area will be covered with native vegetation. During floods anadromous fish will forage on this floodplain and the Sacramento Splittail will spawn. Both will safely return to the river channel as flood waters recede. The restored riparian woodland vegetation will provide habitat for the wide array of species that are characteristic of riparian areas in the San Joaquin Valley, as well as riparian-obligate birds, the listed Valley Elderberry Longhorn Beetle, and the recently reintroduced Riparian Brush Rabbit.

(5) A description of the geographic boundaries of the project

The project area lies in northern Stanislaus County, along the west bank of the San Joaquin River, less than one-quarter mile south of the State Highway 132 bridge. The Tuolumne River enters the San Joaquin River about one mile upstream of this project and the Stanislaus River enters the San Joaquin River about 2.5 miles downstream of the project.

(6) Verification that the project is located at least partially in one of the qualifying areas listed in Section 497.5(a).

The project area is predicted to flood for seven days once every 2.5 years. This proposal fits with Section 497.5(a)(2)(d) as it is designed to enhance a flood protection corridor while enhancing wildlife value.

(7) A description and justification of any proposed use of program funds for flood control system or water system repairs performed as part of an easement program or a project developed or financed under the program (Water Code Section 79043).

None planned

(8) A demonstration that the project is technically feasible

Wetland construction and riparian woodland restoration have a well-developed technology used by Refuge staff. Active tree-and shrub-planting is recommended to establish a diverse association of trees and shrubs in a pattern preferred by target-wildlife. Standard restoration methods call for irrigation and weed control for three years. Sacramento River Partners is currently implementing an 800 acres restoration of riparian woodland on parcels adjacent to the project area.

(9) A hydrologic and hydraulic analysis prepared by a civil engineer registered pursuant to California law or a Professional Hydrologist-Surface Water certified by the American Institute of Hydrology.

A hydrologic and hydraulic analysis will be prepared as one of the first tasks under this proposal.

(10) A complete initial study environmental checklist as required by Section 15063(f), Title 1, California Code of Regulations, and if available a completed Environmental Impact Report or other environmental documentation as required by CEQA.

The Refuge is federal property and therefore falls under the requirements of NEPA. See attached CEQA checklist.

(11) A list of required permits for the project and an implementation plan for their procurement.

On Refuge lands, the restoration of wildlife habitat is covered under a categorical exclusion from NEPA. Endangered species permitting is handled internally by the US Fish and Wildlife Service, the managers of the Refuge.

(b) Maps and drawings as necessary to describe the project, including:

(1) A vicinity map (on the following page)

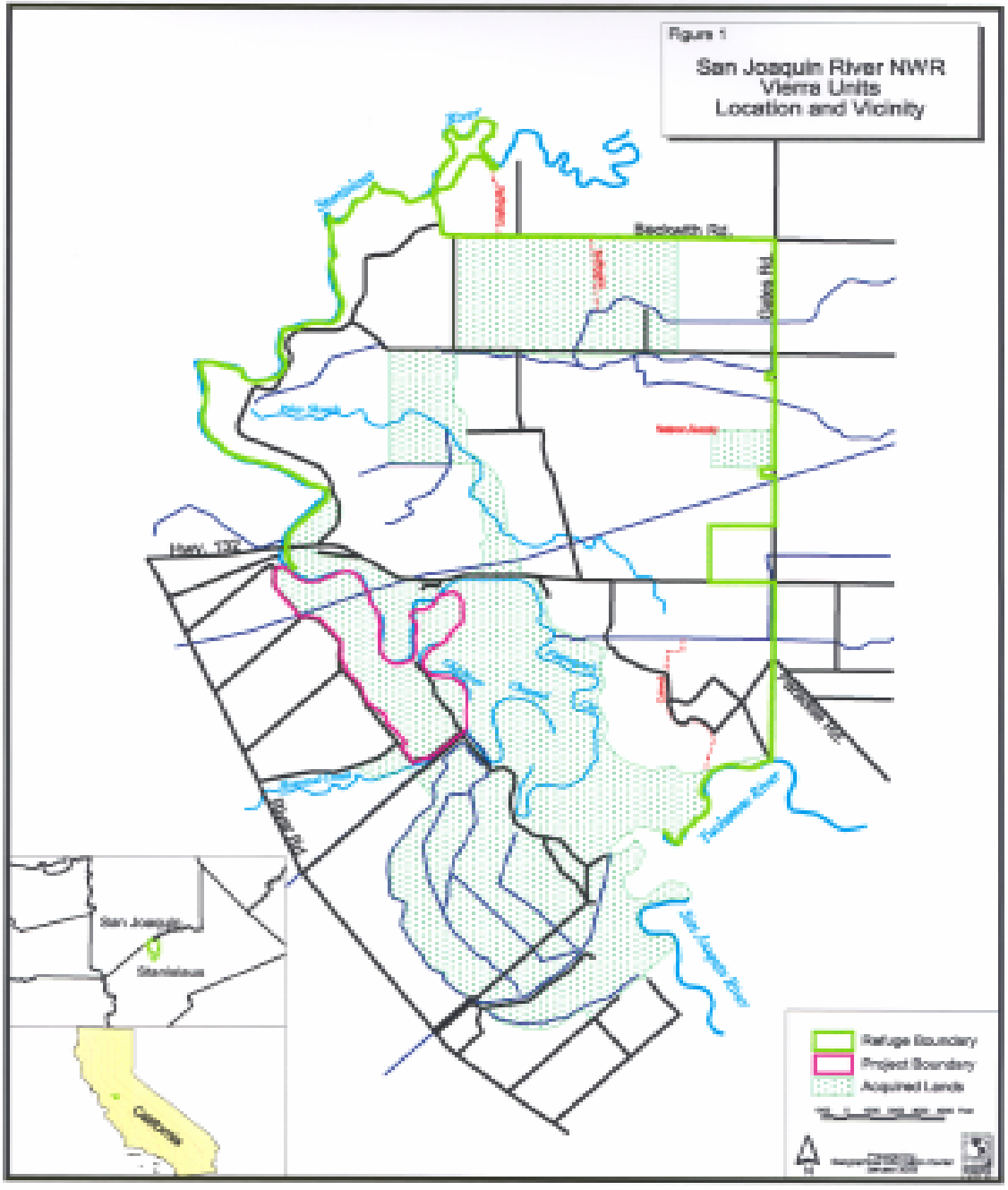
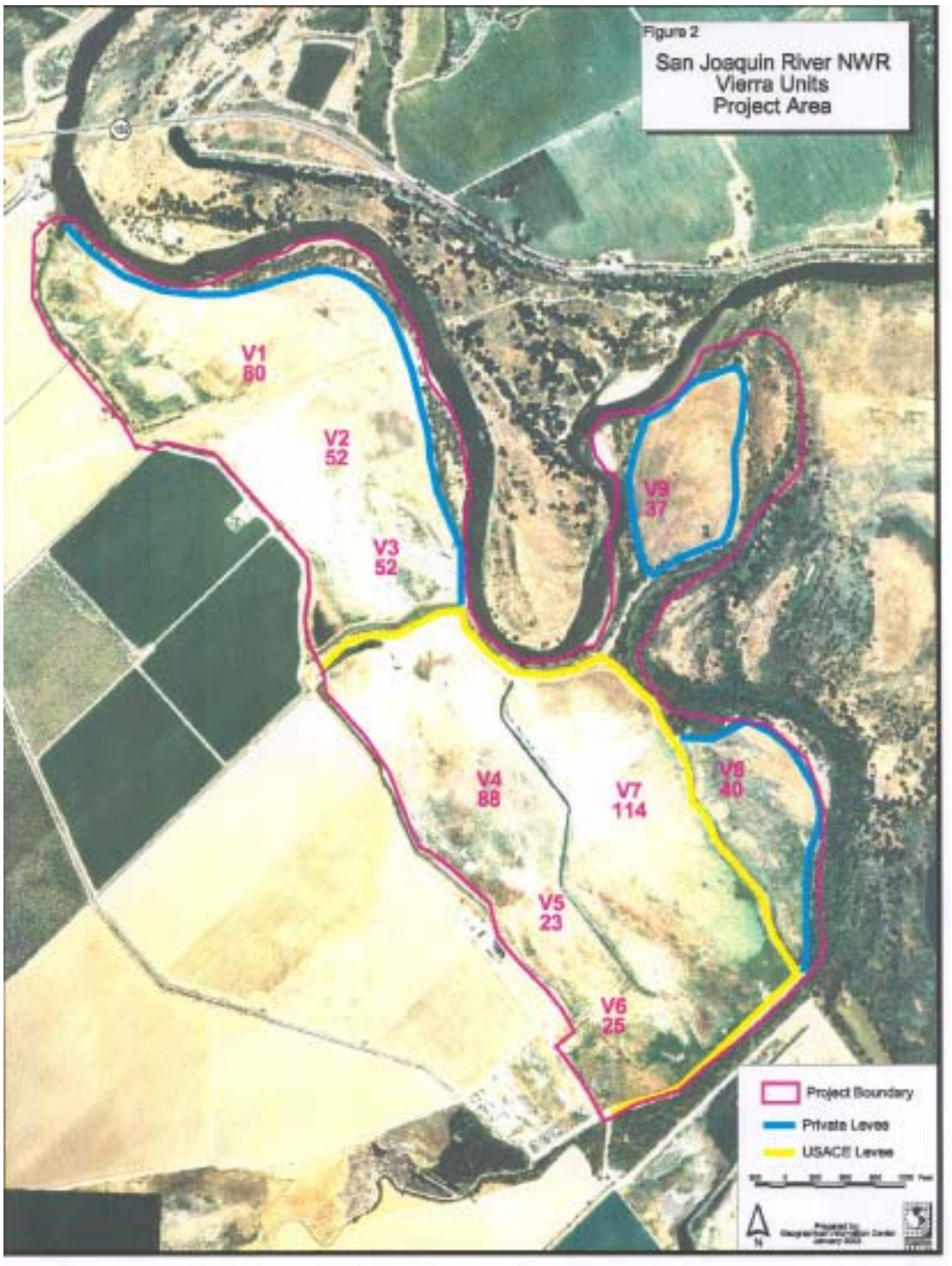


Figure 1
San Joaquin River NWR
Vierra Units
Location and Vicinity
Refuge Boundary
Project Boundary
Acquired Lands

(2) A map indicating location of project features and boundaries of affected property.



(3) Drawings or sketches of project features as necessary to describe them.

None

(c) A financial summary including:

(1) The estimated cost of the project broken down by task

	Direct Salary	Service Contracts	Material Costs	Miscellaneous and other Direct Costs	Overhead and Indirect Costs	Total Cost
Planning						
Hydraulic Study	$ 12,211	$ 27,990	$ -	$ 40,589	$ 12,119	$ 92,909
Site Assessment Restoration	5,860	1,244	622	7,914	2,346	17,986
Site Assessment Wetlands	-	-	-	8,000	1,200	9,200
Restoration	9,769	4,043	933	15,056	4,470	34,271
Total Planning	$ 27,840	$ 33,277	$ 1,555	$ 71,559	$ 20,135	**$ 154,366**
Survey/Layout					$ -	
Ground Prep Restoration	$ 17,095	$ 54,425	$ 622	$ 2,799	$ 11,241	$ 86,182
Ground Prep Wetlands	-		-	35,000	5,250	40,250
Total Survey/Layout	$ 17,095	$ 54,425	$ 622	$ 37,799	$ 16,491	**$ 126,432**
Irrigation					$ -	
Irrigation Restoration	$ 14,653	$ 46,650	$ 132,175	$ 1,493	$ 29,246	$ 224,217
Irrigation Wetlands	-		-	242,500	36,375	278,875
Total Irrigation	$ 14,653	$ 46,650	$ 132,175	$ 243,993	$ 65,621	**$ 503,092**
Planting					$ -	
Plant Propagation	$ 19,537	$ 3,110	$ 130,620	$ 3,110	$ 23,457	$ 179,834
Field Planting	41,516	77,750	6,220	23,325	22,322	171,133
Total Planting	$ 61,053	$ 80,860	$ 136,840	$ 26,435	$ 45,778	**$ 350,966**
					$ -	
Maintenance	$ 63,495	$ 77,750	$ 46,650	$ 26,124	$ 32,103	$ 246,122
Monitoring	51,285	12,500	1,866	3,732	10,407	79,790
Project Management	156,296	10,574	-	3,732	25,590	196,192
Contingencies	39,074	15,550	15,550	15,550	12,859	98,583
Total	**$ 430,791**	**$ 331,586**	**$ 335,258**	**$ 428,924**	**$ 228,984**	**$ 1,755,543**

Assumptions:
Woody species will be planted at a density of 280 plants per acre.
All costs reflect a three-year cultivation period - plant in year one and maintenance in years two and three.
Monitoring includes tree survivorship in year 1, 2, and 3 and songbird monitoring (fixed radius point counts,
area search census, and habitat/vegetation assessment).
Reports budgeted include a restoration unit plan, end of season reports (3), and project completion report.
Plant Propagation captures all cost associated with seed and cutting collecting, processing, cold storage, nursery propagation of potted stock.

(2) The estimated flood control benefits of the project
Based upon the US ACE values given for Economic Assessment Areas SJ21, SJ22, SJ23, SJ24 (US Army Corps of Engineers, March 1999. Post Flood Assessment for 1983, 1986, 1995, 1997)

Economic Assessment Area	Value of Structures (in Millions $)	Acres of Agriculture
SJ21	$2.4	980
SJ22	$616.0	16,230
SJ23	$7.3	6,550
SJ24	$0.3	670

(3) The amount of the grant requested
$1,755,542

(4) The estimated amount to be funded by the applicant
None

(5) Identification of any other parties contributing to the cost, and the amounts and activities to be funded by them.

(d) A summary of proposed property acquisition rights including:
No property will be acquired under this proposal.

(1) Identification of each property

(2) Names, addresses and telephone numbers of the property owners and lessees or tenants.

(3) The type of property rights to be acquired (such as easement or fee title).

(4) Evidence that affected landowners are willing participants in any proposed real property transactions.

(5) A justification of any proposed acquisition of fee interest in property to protect or enhance a flood protection corridor or floodplain while preserving or enhancing agricultural use (Water Code Section 79037(b)(1)) which includes:

a. Reason for the fee title acquisition

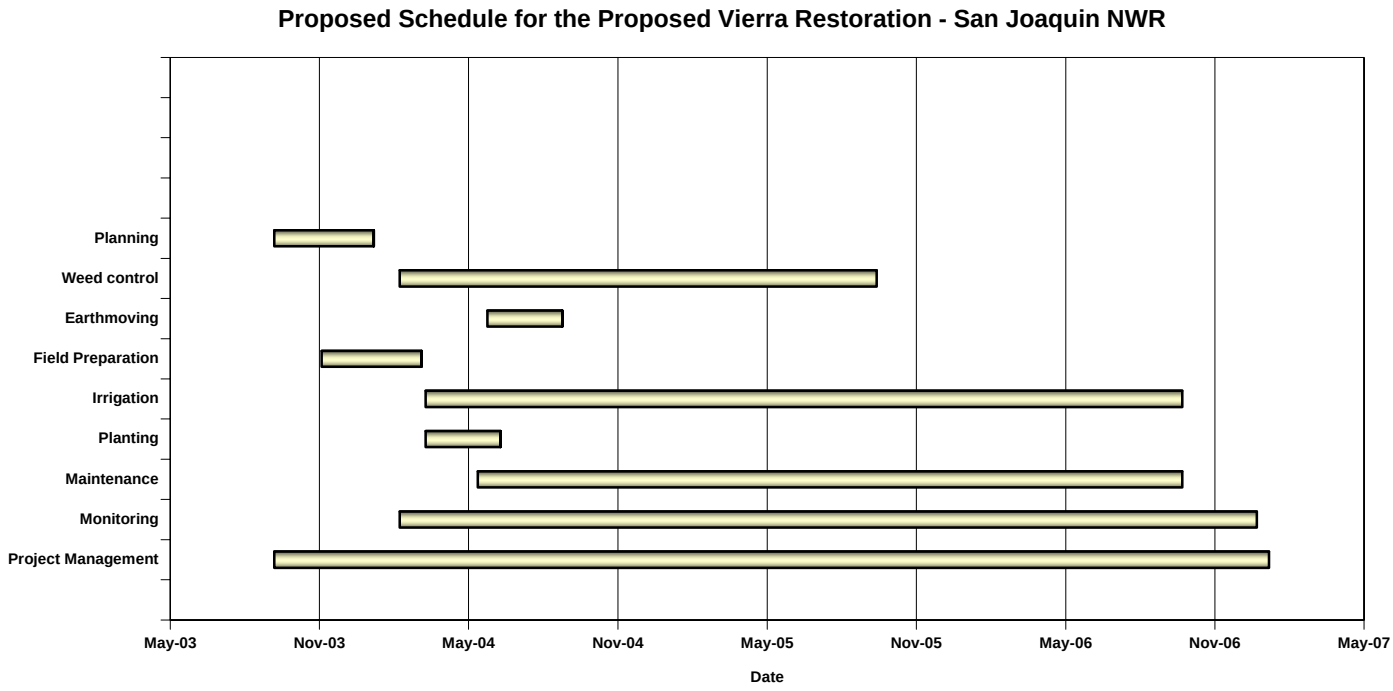
b. Alternatives considered to fee title acquisition for each property

c. Proposed final disposition of the property

d. Effect on county property tax revenue

(e) A tentative work plan for the project including:

(1) A timetable for execution of the project:



(2) A task breakdown for the project:

The following will coincide with the tasks listed on the budget sheet:

PLANNING

Hydraulic Study will involve modeling of hypothetical flows through levee breaches at various locations around the Vierra Unit to determine how flows will cross the unit, with the goal of preventing fish-stranding on the floodplain.

Site Assessment Restoration will involve evaluating soils, topography, weed communities and other site factors that will determine the species composition of the riparian revegetation.

Site Assessment Wetlands will involve surveying and designing of wetland basins that will not entrap fish during floods.

Restoration Plan involves the production of an implementation document for the entire project.

GROUND PREPARATION

Ground Prep Restoration will involve disking the weeds and constructing planting rows

Ground Prep Wetlands will move soil to form wetland basins that will allow for fish passage as floods recede.

IRRIGATION

Irrigation Restoration will require installing at least two new pumps with fish screens to service the needs of the riparian vegetation planting and to provide water to the wetlands during non-flood years.

Irrigation Wetland will use the same pumps as above and will have additional costs for water control structures.

PLANTING

Plant propagation will involve service contracts to plant nurseries to grow container-stock for the revegetation.

Field planting is the labor costs and materials (plant-protectors, labels) for installing the plants into the unit.

MAINTENANCE is the costs of operation of the irrigation system and the costs of weed control over the entire unit for the three year duration.

MONITORING takes place monthly as implementation practices are monitored. End of season monitoring will show areas of low or high survival for each plant species.

PROJECT MANAGEMENT are the management cost over the life of the project

(3) A description of how services of the California Conservation Corps, or local community conservation corps will be used in the project.

Probably will not use the CCCs because the field work is carried out by local field workers from a labor contractor.

(f) A list of names and addresses of owners of all property interests in parcels adjacent to those for which acquisition of property rights is proposed.

(g) If property rights are to be acquired for the project, or if a need is indicated in environmental review documentation prepared for the project pursuant to CEQA, a plan to minimize the impact of the project on adjacent property owners, including but not limited to the following (Water Code Section 79041):

(1) An evaluation of the impact on floodwaters

(2) The structural integrity of affected levees

(3) Diversion facilities

(4) Current and historic agricultural practices on the project site and in the vicinity

(5) Timber extraction operations

(6) An evaluation with regard to maintenance

(h) A description of the input and participation that local groups and affected parties provided in the preparation of the work plan and application.
Staff of the US Fish and Wildlife Service provided the conceptual design and cost estimates for the wetland restoration.

(i) A statement relative to the use of a trust fund for maintenance, or any proposed alternative, as specified in Water Code Section 79044.
Refuge management policy calls for annually monitoring wildlife populations on the project area.

(j) Either or both of the following, depending on applicability:

(1) An analysis of the project benefits to wildlife habitat.
This project will restore high quality wildlife habitat on the entire 511 acres of project area. The riparian woodland will be designed to provide habitat for the wildlife characteristic of the San Joaquin Valley, including riparian obligate birds and the listed Riparian Brush Rabbit and the Valley Elderberry Longhorn Beetle. During floods juvenile salmon and steelhead will forage on the floodplain that is dominated by native plants and Sacramento splittail will find native plants to spawn in. As floodwaters recede fish will easily find their way into the river channel. During non-flood years 200 acres of managed seasonal wetlands will exist in the project area providing habitat for a long list of waterfowl and shorebirds.

(2) A description of project actions to preserve agricultural land.
The project is located on US Fish and Wildlife Service property. The project's flood control benefits will affect nearby farmland by reducing the threat of flooding.

(k) A statement of qualifications for the project team.
See attached "Corporate Resume" for Sacramento River Partners.

(l) A written statement by an attorney certifying that the applicant is authorized to enter into a grant agreement with the State of California.
See attachment.

Note: Authority: Water Code Sections 8300, 12580, and 79044.9.
Reference: Water Code Sections 79035 through 79044; Public Resources Code Sections 21000 *et seq*.; California Code of Regulations, Title 1, Section 15063(f).

Flood Protection Corridor Program
Project Evaluation Criteria
And Competitive Grant Application Form

II. General Information

Project Name: Vierra Unit Restoration

Project Location: San Joaquin River National Wildlife Refuge

County: Stanislaus County

Name and address of sponsoring agency or non-profit organization:

Sacramento River Partners
539 Flume Street
Chico, CA 95928

Name of Project Manager (contact): Tom Griggs

Phone Number: 530-894-5401, ext. 31 **E-mail Address**:tgriggs@riverpartners.org

Grant Request Amount: $1,755,542

Tom Griggs	Senior Restoration Ecologist
Project Manager	**Title**

13 February 2003

Date

Project Objective(s): Briefly describe your project and explain how it will advance FPCP goals. Please also include a detailed map of the immediate project site and another that shows its location within your geographical area. Photographs showing problem areas proposed to be enhanced by the project should also be included.

This proposed project – Vierra Unit Restoration at San Joaquin River NWR-– is located due west of Modesto, less than one-quarter mile south of State Highway 132 where it crosses the San Joaquin River. The northern portion of the project area is composed of several fallow agricultural fields that were purchased by the US FWS in 1998 following the damage to the farming infrastructure caused by the floods of 1997. The private levees that breached in 1997 remain unrepaired, nor otherwise modified. Low, wetland areas remain as basins that could entrap fish during future flooding. The southern portion of the project is protected by a USACE project levee that also breached in 1997, but was subsequently repaired. The ACE has developed the Non-Structural Flood Protection Demonstration Project that will breach it's project levees on the Refuge in the near future, dependent upon the completion of a site specific hydraulic model. This proposal will ensure that the 511 acres will function as floodplain at flows greater than 16,000 cfs and that it will also be high quality riparian habitat for obligate riparian songbirds and two listed species, the Riparian Brush Rabbit and the Valley Elderberry Longhorn Beetle, and that the wetlands will not entrap fish as flood flows recede.

***To be complete, an application package must include all of the items specified in the proposed Section 497.7 of Title 23, California Code of Regulations, Division 2, that is available on the FPCP web site (www.dfm.water.ca.gov/fpcp) by selecting the Regulations link.**

III. Minimum Qualifications

Project proposals that do not meet the minimum qualifications will not be accepted.

A. ρ The project proposes to use any granted funds for protection, creation, and enhancement of flood protection corridors *[Water Code Section 79037(b)]*.

B. ρ A local public agency, a non-profit organization, or a joint venture of local public agencies, non-profit organizations, or both proposes the project *[Water Code Section 79037(a)]*.

C. ρ The project will use the California Conservation Corps or a community conservation corps whenever feasible *[Water Code Section 79038(b)]*.

D. ρ If it is proposed to acquire property in fee to protect or enhance flood protection corridors and floodplains while preserving or enhancing agricultural use, the proponent has considered and documented all practical alternatives to acquisition of fee interest *[Water Code Section 79039(a)]*.

E. ρ Holders of property interests proposed to be acquired are willing to sell them *[Water Code Section 79040]*.

F. ρ If it is proposed to acquire property interests, the proposal describes how a plan will be developed that evaluates and minimizes the impact on adjacent landowners prior to such acquisition and evaluates the impact on the following *[Water Code Section 79041]*:

- ►Floodwaters including water surface elevations and flow velocities
- ►The structural integrity of affected levees
- ►Diversion facilities
- ►Customary agricultural husbandry practices
- ►Timber extraction operations

The proposal must also describe maintenance required for a) the acquired property, b) any facilities that are to be constructed or altered.

G. ρ The project site is located at least partially in one of the following:

1. A Federal Emergency Management Agency (FEMA) Special Flood Hazard Area (SFHA), or
2. An area that would be inundated if the project were completed and an adjacent FEMA SFHA were inundated, or
3. A FEMA SFHA, which is determined by using the detailed methods identified in FEMA Publication 37, published in January 1995, titled “Flood Insurance Study Guidelines and Specifications for Study Contractors”, or
4. A floodplain designated by The Reclamation Board under Water Code Section 8402(f) *[Title 23, California Code of Regulations, Division 2, Section 497.5(a)],* or a
5. Locally designated Flood Hazard Area, with credible hydrologic data to support designation of at lease one in 100 annual probability of flood risk. This is applicable to locations without levees, or where existing levees can be set back, breached, or removed. In the latter case, levee setbacks, removal, or breaching to allow inundation of the floodplain should be part of the project.

IV. (340 points) Flood Protection Benefits

A. Existing and potential urban development in the floodplain (50)

1. Describe the existing and potential urban development at the site and the nature of the flood risk.

No urban development is possible on the project site because it is owned by the US Fish and Wildlife Service. Any future development on private property adjacent to the project will be above flood stage due to a natural rise in topography.

2. How often has flooding occurred historically?

Historically, the project site flooded only when levees broke due to high streamflows, as in 1997. With breached levees NRCS predicts flooding will occur for more than seven days once every 2.5 years

3. Discuss the importance of improving the flood protection at this location. Include the number of people and structures that are affected by the flood hazard, and the flood impacts to highways and roads, railroads, airports and other infrastructure, and agriculture.

This project will lower the stage of the river during floods both upstream and downstream and function as a sediment trap that will remove sediments from the channel, thereby increasing channel capacity. The State Highway 132 bridge over the San Joaquin River lies less than one-quarter mile from the north edge of this project (downstream). The mouth of the Tuolumne River lies about one mile upstream of this project, and the mouth of the Stanislaus River is about 2.5 miles downstream of the project. Thus, the levees, and farmland behind them, on three different rivers will receive flood attenuation benefits from this proposal.

Based upon the US ACE values given for Economic Assessment Areas SJ21, SJ22, SJ23, SJ24 (reference: US Army Corps of Engineers, March 1999. Post Flood Assessment for 1983, 1986, 1995, 1997)

Economic Assessment Area	Value of Structures (in Millions $)	Acres of Agriculture
SJ21	$2.4	980
SJ22	$616.0	16,230
SJ23	$7.3	6,550
SJ24	$0.3	670

B. Flood damage reduction benefits of the project (100)

1. Does the proposed project provide for transitory storage of floodwaters? What is the total community need for transitory storage related to this water course and what percentage of the total need does this project satisfy? What is the volume of water and how long is it detained?

Yes, transitory storage of floodwaters will take place on the project site. The project is located on the mainstem of the San Joaquin River about one mile downstream from its confluence with the Tuolumne River and about 2.5 miles upstream of the confluence with the Stanislaus River. Thus, this project will help attenuate flows from more than one river system. Had this project been in-place at the time of the January 1997 flood, much of that flood's local damages would have been avoided. This project covers 511 acres. It is a part of the larger – 3166 acres - ACE Non-Structural Flood Protection Demonstration Project. The project area begins to flood when streamflows reach about 16,000 cfs. In 1997 flood depths ranged from 6 feet to over 12 feet deep across the entire project area.

2. Describe any structural and non-structural flood damage reduction elements of the project. (Examples of structural elements are levees, weirs, detention/retention basins, rock slope-protection, etc. Examples of non-structural elements are acquisition of property for open space, acquisition of land for flood flow easements, transitory storage, relocation of structures and other flood prone development, elevating flood prone structures, flood proofing structures, etc.)

This project will provide non-structural flood damage reduction through transitory storage of floodwaters. Natural rise in the elevation of the topography at the property boundary will ensure that the neighboring property cannot flood. This project covers 525 acres. It is a part of the larger – 3166 acres - ACE Non-Structural Flood Protection Demonstration Project. The project area begins to flood when streamflows reach about 16,000 cfs.

3. By what methods and by how much dollar value will the project decrease expected average annual flood damages?

By reconnecting the floodplain to the river channel by levee breaching, this project will provide transitory floodwater storage. Had this project been in-place at the time of the January 1997 flood, much of that flood's local damages would have been avoided.

4. How does the project affect the hydrologic and hydraulic conditions at the project site and adjacent properties?

   a) Will the project reduce the magnitude of a flood flow, which could cause property damage and/or loss of life?

   Yes, through reconnection of the river with its floodplain which will provide transitory flood storage.

   b) What are the effects of the project on water surface elevations during a flood event which could cause property damage and/or loss of life?

   Water surface elevations during a flood event will be significantly reduced compared to current conditions in the neighborhood. The proximity of this project to the mouths of the Stanislaus River (2.5 miles downstream) and the Tuolumne

River (one mile upstream) could affect the water elevations in these rivers as well. A natural rise in the elevation of the topography (15 to 20 feet) at the west property boundary will ensure that the neighboring properties cannot flood.

c) How are flow velocities impacted by the project during a flood flow which could cause property damage and/or loss of life?

Flow velocities will be reduced in the channel of the San Joaquin River because at about 16,000 cfs the flood water will begin to spread across its floodplain, which currently does not happen.

C. Restoration of natural processes (60)

1. Describe how any natural channel processes will be restored (for example: for channel meander, sediment transport, inundation of historic floodplain, etc.) and describe how these natural processes will affect flood management and adjacent properties.

The channel will be reconnected with its floodplain which will lower the stage in the channel, relative to current conditions. Sediment transport will be affected with deposition of sediments onto the reconnected floodplain. Natural rise in the elevation (15-20 feet) of the topography at the property boundary will ensure that the neighboring properties cannot flood (the neighboring properties did not flood in 1997).

2. Describe any upstream or downstream hydraulic or other effects (such as bank erosion or scour, sediment transport, growth inducement, etc.).

This project should reduce the magnitude of hydraulic effects as it will allow flood waters to spread out on the historic floodplain. Sediment deposition on the reconnected floodplain will remove sediments that currently remain in the channel, thus increasing water conveyance in the channel.

3. If the project includes channel modification or bank protection work, will riprap or dredging be part of the design? If so, provide an analysis of potential benefits and impacts.

No channel modifications are planned, nor rip-rap or dredging.

D. Project effects on the local community (60)

1. How will the project impact future flooding on and off this site?

The proposed project will increase the frequency of flooding on the site. However, the project will reduce the hydraulic pressure on nearby levees by lowering water elevations during floods in the local area and thus, lower the risk of levee failure.

2. How will the project affect emergency evacuation routes or emergency services and demands for emergency services?

No negative effects. This project is one-quarter mile upstream from the Highway 132 bridge over the San Joaquin River. Highway 132 is the main transportation corridor west from Modesto.

3. Explain how the project will comply with the local community floodplain management ordinance and the floodplain management criteria specified in the Federal Emergency Management Agency's National Flood Insurance Program (FEMA's NFIP).

This proposal will not increase the risk of flooding to any human infrastructure, it will lower the risks.

E. Value of improvements protected (70)

1. What is the assessed value of structural improvements that will be protected by the project?

Based upon the US ACE values given for Economic Assessment Areas SJ21, SJ22, SJ23, SJ24 (US Army Corps of Engineers, March 1999. Post Flood Assessment for 1983, 1986, 1995, 1997)

Economic Assessment Area	Value of Structures (in Millions $)	Acres of Agriculture
SJ21	$2.4	980
SJ22	$616.0	16,230
SJ23	$7.3	6,550
SJ24	$0.3	670

2. What is the estimated replacement value of any flood control facilities or structures protected by the project?

Risk to levees (failure) will be reduced because of water elevation reduction from this project.

V. (340 points) Wildlife and Agricultural Land Conservation Benefits

Proponent should provide a statement of the relative importance of the project's wildlife and agricultural land conservation benefits. DWR will use the statement and all other project materials to assign a fraction of the total benefits to each type (wildlife (F_w) or agricultural land conservation (F_a)) so that the fractions total unity. Actual points scored for each type of resource will be multiplied by the respective fraction for each resource, and the wildlife and agricultural scores resulting for each type of resource will be added together.

A. (340xF_w points) Wildlife Benefits

Habitat values refer to the ecological value and significance of the habitat features at this location that presently occur, have occurred historically, or will occur after restoration.

Viability refers to the site's ability, after restoration if necessary, to remain ecologically viable with minimal on-site management over the long-term, and to be able to recover from any natural catastrophic disturbances (fire, floods, etc.).

A1. Importance of the site to regional ecology (70)

1. Describe any habitat linkages, ecotones, corridors, or other buffer zones within or adjacent to the site. How are these affected by the project?

The entire project area will be restored to wildlife habitat, building upon 800 acres of riparian restoration on adjacent Refuge lands. It is adjacent to other Refuge lands. In addition to providing riparian habitat, the Refuge is at the center of a wildlife corridor connecting the upper San Joaquin River, the Stanislaus River, and the Tuolumne River with the south Delta. This project will enhance the quality (habitat values) of this corridor.

2. Is the site adjacent to any existing conservation areas?

The entire project site is located on the San Joaquin River National Wildlife Refuge.

3. Describe any plans for aquatic restoration resulting in in-stream benefits.

No plans for directly manipulating the channel. However, breaching of existing levees will benefit the channel capacity by means of removing sediments from the channel by depositing them on the newly reconnected floodplain.

4. Discuss any natural landscapes within the site that support representative examples of important, landscape-scale ecological functions (flooding, fire, sand transport, sediment trapping, etc.)?

The entire project area (511 acres) will flood at about 16,000 cfs as will several thousand acres of adjacent riparian lands on the Refuge. The entire project when built will function as a sediment trap during large floods, thus removing sediments from the main channel of the San Joaquin River.

A2. Diversity of species and habitat types (70)

1. Does the site possess any:
   i. Areas of unique ecological and/or biological diversity?

The project site is adjacent to high quality riparian habitat on the SJRNWR. This habitat is documented as high quality for breeding riparian obligate birds, especially song sparrows and blue grosbeaks. This proposal will enhance these species' habitat.

   ii. Vegetative complexity either horizontally or vertically?

The adjacent Refuge lands support a structurally complex riparian vegetation with an especially diverse understory component. Relative to other riparian areas in the State, the SJRNWR contains very few woody weeds.

2. Describe habitat components including year-round availability of water, adequate nesting/denning areas, food sources, etc.

The San Joaquin River flows through this project and the adjacent Refuge lands and provides a perennial source of water. In addition natural lakes have reformed on the Refuge, less than hundred yards from the edge of the project. California quail are common around the perimeter of the project area and will use the restored land after this project is implemented. A heron rookery is about one half mile from the project.

3. Describe any superior representative examples of specific species or habitats.

This habitat is documented (by PRBO and Refuge staff) as high quality for breeding riparian obligate birds, especially song sparrows and blue grosbeaks.

4. Does the site contain a high number of species and habitat types? List and describe.

Riparian woodland supports wildlife characteristic of the San Joaquin Valley as well as breeding habitat for many neotropical migratory birds. The adjacent seasonal and permanent wetlands support resting and foraging habitat for a wide range of waterfowl, including ducks, geese, egrets, sandhill cranes, and shorebirds.

5. Does the site contain populations of native species that exhibit important subspecies or genetic varieties historically present prior to European immigration?

The proposed project will provide habitat for reintroduction of the Riparian Brush Rabbit (currently underway on an adjacent tract) and the Valley Elderberry Longhorn Beetle, both listed species.

A3. Ecological importance of species and habitat types (100)

1. Discuss the significance of habitat types at this location and include any local, regional, or statewide benefits received by preserving or improving the area.

This neighborhood (Refuge) supports the largest contiguous acreage of riparian woodland remaining on the San Joaquin River and is a critical habitat linkage (see above) for many species that connects the Tuolumne and Stanislaus Rivers with the south Delta. The adjacent Refuge lands support a structurally complex riparian vegetation with an especially diverse understory component. Relative to other riparian areas in the State, the SJRNWR contains very few woody weeds.

2. Does the site contain any significant wintering, breeding, or nesting areas? Does it fall within any established migratory corridors? What is the level of significance? How are these affected by the project?

The riparian habitat on the Refuge is documented (by PRBO and Refuge staff) as high quality for breeding riparian obligate riparian birds, especially song sparrows and blue grosbeaks. California quail are common around the perimeter of the project area and will use the restored land after this project is implemented. A heron rookery is about one half mile from the project. The project area is in the Pacific Flyway and is an important stopping area for many waterfowl as well as landbirds during migration. This project will increase the acreage of quality riparian and wetland habitat.

3. Describe any existing habitats that support any sensitive, rare, "keystone" or declining species with known highly restricted distributions in the region or state. Does the site contain any designated critical habitat? How are these affected by the project?

Currently underway is the Riparian Brush Rabbit Recovery Program that is reintroducing it on the Refuge, less than ¼ mile away from this project site. The Refuge will be a reintroduction site for the Valley Elderberry Longhorn Beetle when the restored elderberry reaches maturity. This project will restore habitat for these two critical species.

4. What is the amount of shaded riverine aquatic (SRA) and riparian habitat to be developed, restored, or preserved?

This project will restore about 311 acres of riparian habitat and about 200 acres of seasonal and permanent wetlands.

A4. Public benefits accrued from expected habitat improvements (60)

1. Describe present public use/access, if any. For instance, does or will the public have access for the purpose of wildlife viewing, hunting, fishing, photography, picnics, etc.

Currently the project area is closed to the public because it is fallow agricultural fields. Plans for the future call for the development of a hunting program on the restored wetlands and for passive bird watching.

2. Discuss areas on the site that are critical for successfully implementing landscape or regional conservation plans. How will the project help to successfully implement the plans?

This project will add to the quality of the Refuge as habitat for a variety of species and as a wildlife corridor.

3. Describe the surrounding vicinity. Include the presence or absence of large urban areas, rapidly developing areas, and adjacent disturbed areas with non-native vegetation and other anthropogenic features. Do any surrounding areas detract from habitat values on the site?

The surrounding non-Refuge lands are irrigated row crops and orchards, supporting virtually no native vegetation for many miles. There are no urban areas nearby, however, the Hwy 132 corridor lies along the north edge of this project, an area ripe for future development.

4. Describe compatibility with adjacent land uses.

Some wildlife use the many alfalfa fields in the area – coyotes, shorebirds, quail.

A5. Viability/sustainability of habitat improvements (40)

1. Describe any future operation, maintenance and monitoring activities planned for the site. How would these activities affect habitat values?

The project area is/will be managed as a unit of the SJR NWR. Future monitoring and management activities will center around the site's habitat quality for priority wildlife.

2. Does the site contain large areas of native vegetation or is it adjacent to large protected natural areas or other natural landscapes (for example, a large stand of blue-oak woodland adjacent to public land)?

The project site is bounded on two sides by other Refuge lands that support native vegetation.

3. Is the watershed upstream of the site relatively undisturbed or undeveloped and likely to remain so into the foreseeable future? Describe its condition.

The watershed upstream of the project site is highly developed to agriculture and urban and suburban. The amount of water storage behind reservoirs on the tributaries results in an unnatural hydroperiod on the project site. However, because of the site's location at the lowest point on the watershed,

flows sufficient to cause flooding are projected to occur once every 2.5 years, based upon historical analysis.

4. Describe any populations of native species or stands of native habitats that show representative environmental settings, such as soil, elevations, geographic extremes, or climatic conditions (for example, the wettest or most northerly location of a species within the state.)

The San Joaquin River NWR protects the largest contiguous block of riparian woodland that remains on the San Joaquin River. Also, on the Refuge is a one acre remnant of unplowed Columbia loam soil that supports virtually 100 percent cover by native herbaceous species. Columbia loam soil is one of the richest agricultural soils in California and has completely converted to agricultural uses.

B. (340xF_a points) Agricultural Land Conservation Benefits

B1. Potential productivity of the site as farmland (120)

No agricultural land will occur inside the project boundaries.

1. Describe the quality of the agricultural land based on land capability, farmland mapping and monitoring program definitions, productivity indices, and other soil, climate and vegetative factors.

2. Are projected agricultural practices compatible with water availability?

3. Does the site come with riparian, mineral, and/or development rights?

4. Is the site large enough to sustain future commercial agricultural production?

5. Does the site contain any adverse or beneficial deed restrictions affecting agricultural land conservation?

6. Describe the present type of agricultural use including the level of production in relation to the site's productivity potential. What is the condition of the existing infrastructure that supports agriculture uses?

B2. Farming practices and commercial viability (40)

1. Does the area possess necessary market infrastructure and agricultural support services?

2. Are surrounding parcels compatible with commercial agricultural production?

3. Is there local government economic support in place for agricultural enterprises including water policies, public education, marketing support, and consumer and recreational incentives?

4. Describe any present or planned future environmentally friendly

farm practices (no till, erosion control, wetlands avoidance, eco-friendly chemicals, recycling wastes, water conservation, biological pest control).

B3. Need and urgency for farmland preservation measures (70)

1. Is the project site under a Williamson Act contract?

2. Describe the surrounding vicinity. Include the presence or absence of large urban areas, rapidly developing areas, low density ranchette communities, and adjacent disturbed areas with non-native vegetation and other human-induced features. Do any surrounding areas detract from agricultural values on the site?

3. What types of conversion or development are likely on neighboring parcels? What are the land uses of nearby parcels? Describe the effects, if any, of this project to neighboring farming operations or other neighboring land uses.

4. Describe the relationship between the project site and any applicable sphere of influence.

5. Is the agricultural land use on the project site consistent with the local General Plan? Does the General Plan demonstrate commitment to long-term agricultural conservation.

B4. Compatibility of project with local government planning (50)

1. Is the agricultural land use on the project site consistent with the local General Plan? Does the General Plan demonstrate commitment to long-term agricultural conservation?

2. What is the present zoning and is the parcel developable?

3. Is there an effective right to farm ordinance in place?

4. Is the project description consistent with the policies of the Local Agency Formation Commission?

5. Will the project as proposed impact the present tax base?

B5. Quality of agricultural conservation measures in the project (50)

1. For agriculture lands proposed for conservation, describe any additional site features to be conserved that meet multiple natural resource conservation objectives, including wetland protection, wildlife habitat conservation, and scenic open space preservation where the conservation of each additional site feature does not restrict potential farming activities on the agriculture portions of the site.

2. What are the present biological/ecological values to wildlife? How are these values affected by the proposed project?

3. Is the project proponent working with any local agricultural conservancies or trusts?

4. Does conservation of this site support long-term private stewardship of agricultural land? How does this proposal demonstrate an innovative approach to agricultural land conservation?

5. Without conservation, is the land proposed for protection likely to be converted to non-agricultural use in the foreseeable future?

VI. (320 points) Miscellaneous Benefits and Quality of Proposal

A. Size of request, other contributions, number of persons benefiting, cost of grant per benefited person (40)

Estimated Total Project Cost	$1,755,542
Amount of FPCP Grant Funds Requested	$1,755,542
Amount of Local Funds Contributed	-0-
Amount of In-kind Contributions	-0-
Additional Funding Sources	None

Number of persons expected to benefit Thousands
Flood Protection Corridor Funds per person benefited.* _____
(* Count as beneficiaries those receiving flood benefits, recreational users of habitat areas protected by the Project, and consumers of food products from agricultural areas conserved by the Project.)

B. Quality of effects on water supply or water quality (90)

1. Will water stored by the project provide for any conjunctive use, groundwater recharge, or water supply benefit?

Water stored on site will provide wildlife habitat. As part of this project many cubic yards of old cow manure from the old dairy will be incorporated into the soil before restoration begins

2. Does the project fence cattle out?

No range cattle in the neighborhood.

3. Does the project pass water over newly developed fresh water marsh?

Yes. The approximately 200 acres of wetland restoration under this proposal will function to filter sediments

4. Does the project trap sediments?

Yes. During flood events the entire project area (511 acres) will trap sediments from floodwater.

C. Quality of impact on underrepresented populations or historic or cultural resources (60)

1. Does the project benefit underrepresented populations? Explain.

The implementation of this project will require hiring local field workers for the three year duration.

2. Are historical or cultural resources impacted by the project? Explain.

Native American cultural remains have been discovered nearby of Refuge lands. This project will not disturb any that may be on the site.

D. Technical and fiscal capability of the project team (60)

1. Does the project require scientific or technical expertise, and if so, is it provided for in the grant proposal?

Yes. See attached Corporate Resume for Sacramento River Partners.

2. Grant funds will be available in phases. What monitoring and reporting mechanisms are built into your administrative plan to track progress, initiation, and completion of successive phases?

We have strong accounting team that knows how to make this work.

3. Please outline your team's management, fiscal and technical capability to effectively carry out your proposal. Mention any previous or ongoing grant management experience you have.

Sacramento River Partners has a track record for implementing and managing this type of contract. See attached Resume.

E. Coordination and cooperation with other projects, partner agencies, and affected organizations and individuals (80)

1. List cost sharing and in-kind partners and any other stakeholders involved with your project and indicate the nature of their contribution, if any. Address the team's ability to leverage outside funds.

USFWS owns the property and is committed to long-term O&M and monitoring.

2. Does your project overlap with or complement ongoing activities being carried out by others (such as CALFED, the Sacramento and San Joaquin River Basins Comprehensive Study, the Delta levee program, local floodplain management programs, the Reclamation Board's Designated Floodway program, or a multiple objective regional or watershed plan)? If so, indicate any coordination that has taken place to date or is scheduled to take place in the future.

SRP is restoring 800 acres of riparian vegetation on adjoining lands on the Refuge under a CALFED grant to the Refuge.

3. Will this application, if approved, begin the next phase of a previously approved project or advance an ongoing project substantially toward completion?

Yes. This proposal will substantially move forward the restoration of the Refuge lands purchased in 1998, all on non-structural flood damage reduction lands,

and it will build upon an 800 acre riparian restoration on an adjacent tract on the Refuge.

4. Describe how the proposal demonstrates a coordinated approach among affected landowners, local governments, and nonprofit organizations. If other entities are affected, is there written support for the proposal and a willingness to cooperate?

Several agencies and organizations have focused their attention and funds to support the restoration of the Refuge. The US Fish and Wildlife Service (USF&WS) worked with the Natural Resources Conservation Service (NRCS) to secure the property through a Wetland Reserve Program easement. The Endangered Species Recovery Program (ESRP) located at California State University, Stanislaus manages the reintroduction of the Riparian Brush Rabbit for the USF&WS with significant funding from the Bureau of Reclamation. The Army Corps of Engineers (ACE) worked with the USF&WS to develop the Non-structural Flood Protection Program which encompasses a portion of this project area.

Private non-profit organizations that have contributed their expertise include Point Reyes Bird Observatory which documented the importance of the riparian lands at the Refuge to riparian obligate birds; Ducks Unlimited has provided funding for wetland engineering; and Sacramento River Partners is implementing a 800 acre riparian restoration on adjacent tracts on the Refuge.

Thank you for taking the time and effort to fill out this application. Please send one hard copy with required signatures by 3:00 p.m. on February 14th, 2003 to:

Earl Nelson, Program Manager
Flood Protection Corridor Program
Division of Flood Management
1416 9th Street, Room 1641
Sacramento, CA 95814

Please also send an electronic copy by 3:00 p.m. on February 14th, 2003 to:

Bonnie Ross at bross@water.ca.gov

ENVIRONMENTAL CHECKLIST FORM / INITIAL STUDY

1. Project Title: Vierra Restoration – San Joaquin NWR

2. Lead Agency Name and Address: Environmental compliance will be completed in accordance with NEPA

3. Contact Person: Tom Griggs
   Senior Restoration Ecologist
   Sacramento River Partners
   539 Flume Street
   Chico, CA 95928
   (530) 894-5401 ext. 31

4. Project Location: On the west bank of the San Joaquin River, at about River Mile 78-79, Stanislaus County, less than one-quarter mile south of Hwy 132 bridge.

5. Project Sponsor's Name and Address:
   Sacramento River Partners
   539 Flume Street
   Chico, CA 95928

6. Description of Project:

   Management actions in the plan include:
   (m) Restore 311 acres with native riparian plants,
   (n) Restore 200 acres of seasonal wetland
   (o) Conduct an hydraulic evaluation
   (p) Reduce fish entrapment
   (q) Provide non-structural floodwater retention.

7. Surrounding Land Uses and Setting:
   Most of the lands adjacent to the project are in riparian habitat, with some sites bordered by agricultural land. Neighboring properties are in either private or public ownership.

Environmental Factors Potentially Affected:

☐ **Land Use and Planning**	☐ **Transportation/Circulation**	☐ **Public Services**
☐ **Population and Housing**	☒ **Biological Resources**	☐ **Utilities and Service Systems**
☐ **Geological Problems**	☐ **Energy and Mineral Resources**	☒ **Aesthetics**
☒ **Water**	☐ **Hazards**	☐ **Cultural Resources**
☐ **Air Quality**	☐ **Noise**	☒ **Recreation**
☐ **Mandatory Findings of Significance**		

Determination: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

☐ **I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.**

☐ **I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on an attached sheet have been added to the project. A NEGATIVE DECLARATION will be prepared.**

☐ **I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT (EIR) is required.**

☐ **I find that the project MAY have a significant effect(s) on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets, if the effect is a "potentially significant impact" or "potentially significant unless mitigated." An EIR is required, but it must analyze only the effects that remain to be addressed.**

☐ **I find that although the proposed project could have a significant effect on the environment, there WILL NOT be a significant effect in this case because all potentially significant effects (1) have been analyzed adequately in an earlier EIR pursuant to applicable standards, and (2) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project.**

Signature **Date**

Printed Name **For**

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact or Positive Impact
I. LAND USE AND PLANNING. Would the proposal:				
a. Conflict with general plan designation or zoning	☐	☐	☐	☒
b. Conflict with applicable environmental plans or policies adopted by agencies with jurisdiction over the project?	☐	☐	☐	☒
c. Be incompatible with existing land use in the vicinity?	☐	☐	☐	☒
d. Affect agricultural resources or operations (e.g., impacts to soils or farmlands, or impacts from incompatible land uses)?	☐	☐	☐	☒
e. Disrupt or divide the physical arrangement of an established community (including a low-income or minority community)?	☐	☐	☐	☒
II. POPULATION AND HOUSING. Would the proposal:				
a. Cumulatively exceed official regional or local population projections?	☐	☐	☐	☒
b. Induce substantial growth in an area either directly or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure)?	☐	☐	☐	☒
c. Displace existing housing, especially affordable housing?	☐	☐	☐	☒
III. GEOLOGIC PROBLEMS. Would the proposal result in or expose people to potential impacts involving:				
a. Fault rupture?	☐	☐	☐	☒
b. Seismic ground shaking?	☐	☐	☐	☒
c. Seismic ground failure, including liquefaction?	☐	☐	☐	☒
d. Seiche, tsunami, or volcanic hazard?	☐	☐	☐	☒
e. Landslides or mudflows?	☐	☐	☐	☒
f. Erosion, changes in topography, or unstable soil conditions from excavation, grading, or fill?	☐	☐	☐	☒
g. Subsidence of the land?	☐	☐	☐	☒
h. Expansive soils?	☐	☐	☐	☒
I. Unique geologic or physical features?	☐	☐	☐	☒

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact or Positive Impact
IV. WATER. Would the proposal result in:				
a. Changes in absorption rates, drainage patterns, or the rate and amount of surface runoff?	☐	☐	☐	☒
b. Exposure of people or property to water related hazards, such as flooding?	☐	☐	☐	☒
c. Discharge into surface waters or other alteration of surface water quality (e.g, temperature, dissolved oxygen, or turbidity)?	☐	☐	☐	☒
d. Changes in the amount of surface water in any water body?	☐	☐	☐	☒
e. Changes in currents, or the course or direction of water movements?	☐	☐	☐	☒
f. Change in the quantity of ground waters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations, or through substantial loss of groundwater recharge capability?	☐	☐	☐	☒
g. Altered direction or rate of flow of groundwater?	☐	☐	☐	☒
h. Impacts to groundwater quality?	☐	☐	☐	☒
I. Substantial reduction in the amount of groundwater otherwise available for public water supplies?	☐	☐	☐	☒
V. AIR QUALITY. Would the proposal:				
a. Violate any air quality standard or contribute to an existing or projected air quality violation?	☐	☐	☐	☒
b. Expose sensitive receptors to pollutants?	☐	☐	☐	☒
c. Alter air movement, moisture, or temperature, or cause any change in climate?	☐	☐	☐	☒
d. Create objectionable odors?	☐	☐	☐	☒
VI. TRANSPORTATION/CIRCULATION. Would the proposal result in:				
a. Increased vehicle trips or traffic congestion?	☐	☐	☐	☒
b. Hazards to safety from design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
c. Inadequate emergency access or access to nearby uses?	☐	☐	☐	☒

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact or Positive Impact
d. Insufficient parking capacity on-site or off-site?	☐	☐	☐	☒
e. Hazards or barriers for pedestrians or bicyclists?	☐	☐	☐	☒
f. Conflicts with adopted policies supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☒
g. Rail, waterborne, or air traffic impacts?	☐	☐	☐	☒
VII. BIOLOGICAL RESOURCES. Would the proposal result in impacts to:				
a. Endangered, threatened, or rare species or their habitats (including but not limited to plants, fish, insects, animals, and birds)?	☐	☐	☐	☒
b. Locally designated species (e.g., heritage trees)?	☐	☐	☐	☒
c. Locally designated natural communities (e.g., oak forest, coastal habitat, etc.)?	☐	☐	☐	☒
d. Wetland habitat (e.g., marsh, riparian, and vernal pool)?	☐	☐	☐	☒
e. Wildlife dispersal or migration corridors?	☐	☐	☐	☒
VIII. ENERGY AND MINERAL RESOURCES. Would the proposal:				
a. Conflict with adopted energy conservation plans?	☐	☐	☐	☒
b. Use non-renewable resources in a wasteful and inefficient manner?	☐	☐	☐	☒
c. Result in the loss of availability of a known mineral resource that would be of true value to the region and the residents of the State?	☐	☐	☐	☒
IX. HAZARDS. Would the proposal involve:				
a. A risk of accidental explosion or release of hazardous substances (including but not limited to: oil, pesticides, chemical, or radiation)?	☐	☐	☐	☒
b. Possible interference with an emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
c. The creation of any health hazard or potential health hazard?	☐	☐	☐	☒
d. Exposure of people to existing sources of potential health hazards?	☐	☐	☐	☒
e. Increased fire hazard in areas with flammable brush,	☐	☐	☐	☒

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact or Positive Impact
grass, or trees?				
X. NOISE. Would the proposal result in:				
a. Increases in existing noise levels?	☐	☐	☐	☒
b. Exposure of people to severe noise levels?	☐	☐	☐	☒
XI. PUBLIC SERVICES. Would the proposal have an effect upon, or result in a need for new or altered government services in any of the following areas:				
a. Fire protection?	☐	☐	☐	☒
b. Police protection?	☐	☐	☐	☒
c. Schools?	☐	☐	☐	☒
d. Maintenance of public facilities, including roads?	☐	☐	☐	☒
e. Other governmental services?	☐	☐	☐	☒
XII. UTILITIES AND SERVICE SYSTEMS. Would the proposal result in a need for new systems or supplies, or substantial alterations to the following utilities:				
a. Power or natural gas?	☐	☐	☐	☒
b. Communications systems?	☐	☐	☐	☒
c. Local or regional water treatment or distribution facilities?	☐	☐	☐	☒
d. Sewer or septic tanks?	☐	☐	☐	☒
e. Storm water drainage?	☐	☐	☐	☒
f. Solid waste disposal?	☐	☐	☐	☒
g. Local or regional water supplies?	☐	☐	☐	☒
XIII. AESTHETICS. Would the proposal:				
a. Affect a scenic vista or scenic highway?	☐	☐	☐	☒
b. Have a demonstrable negative aesthetic effect?	☐	☐	☐	☒
c. Create light or glare?	☐	☐	☐	☒
XIV. CULTURAL RESOURCES. Would the proposal:				
a. Disturb paleontological resources?	☐	☐	☐	☒
b. Disturb archaeological resources?	☐	☐	☐	☒
c. Affect historical resources?	☐	☐	☐	☒

Issues	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact or Positive Impact
d. Have the potential to cause a physical change which would affect unique ethnic cultural values?	☐	☐	☐	☐X
e. Restrict existing religious or sacred uses within the potential impact area?	☐	☐	☐	☐X
XV. RECREATION. Would the proposal:				
a. Increase the demand for neighborhood or regional parks or other recreational facilities?	☐	☐	☐	☐X
b. Affect existing recreational opportunities?	☐	☐	☐	☐X
XVI. MANDATORY FINDINGS OF SIGNIFICANCE.				
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish and wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☐	☐X
b. Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals?	☐	☐	☐	☐X
c. Does the project have impacts that are individually limited, but cumulatively considerable?	☐	☐	☐	☐X
d. Does the project have environmental effects which will cause substantial adverse effects on human beings either directly or indirectly?	☐	☐	☐	☐X

539 Flume Street
Chico, California 95928
Phone: (530) 894-5401Fax: (530) 894-2970
info@riverpartners.org

CORPORATE RESUME

Sacramento River Partners (SRP) is a California non-profit corporation founded in 1998 under current Federal 501 (c) (3) registration dedicated to the mission of creating wildlife habitat for the benefit of people and the environment. In the last 4 years SRP has secured $11,000,000 in public and private funding, built a staff of 21 full time employees and developed the organizational capacity to carry out this mission. We are in the process of restoring 1,700 acres on 16 separate projects along both the Sacramento and San Joaquin Rivers. We recently acquired a $1.7 million dollar riverside property and hold purchase agreements on two other parcels. SRP's science team has completed fish entrapment studies, Valley Elderberry Long-horn Beetle surveys, and pre-restoration plans for several agencies.

Sacramento River Partners has the experience, expertise and resources to solve problems and develop meaningful solutions. A partial list of our projects follows:

Riparian Restoration

- US Fish and Wildlife Service, San Joaquin River National Wildlife Refuge 800-acres
- Wildlife Conservation Board, Pine Creek Unit 231-acres
- US Fish and Wildlife Service, Llano Seco 209-acres
- California Department of Fish and Game, Jacinto Unit 37 acres
- California State University Chico, Cottonwood Unit 15 acres

Planning and Consulting

- California Department of Parks and Recreation, Peterson Restoration Plan
- Central Valley Project Improvement Act, La Barranca Salmon Entrapment Study
- California Waterfowl Association, Mohler Unit Restoration Plan
- Glenn Colusa Irrigation District, Mitigation Plans Phase I and II
- San Joaquin River National Wildlife Refuge, Pre-Restoration Plan
- US Fish and Wildlife Service, Martin Family Cemetery Report

Mitigation

- Glenn Colusa Irrigation District, 150-elderberry transplant contract
- Army Corps of Engineers, Murphy Slough weed control project
- McAmis Construction Company, elderberry transplant contract

BRIEF RESUMES

John Carlon – President

Mr. Carlon has extensive knowledge in agriculture and restoration. He obtained a B.S. in agronomy and horticulture from C.S.U. Chico and a M.S. in International Agricultural Development from C.S.U. San Luis Obispo. Mr. Carlon has been engaged in land protection and riparian restoration on the Sacramento River for the last 10 years. He has had direct involvement in the acquisition and restoration of over 1,700 acres along the Sacramento River.

Bernard Flynn – Vice President

Mr. Flynn has 18 years of experience as a farm manager. He obtained a B.A. from Harvard and a M.A. from C.S.U. Chico. Mr. Flynn has developed several innovative restoration practices including a software program that facilitates field planting and monitoring of species survival.

Tom Griggs – Senior Restoration Ecologist

Dr. Griggs has 22 years of experience in riparian restoration. He developed the original riparian restoration efforts on the Sacramento River and has been published extensively in professional journals on riparian restoration. He obtained a B.S. in biology from California Polytechnic University, Pomona, a M.S. in Botany from C.S.U. Chico and a Ph.D. in ecology from U.C. Davis.

Dan Efseaff – Restoration Ecologist

Mr. Efseaff received a B.S. in biology from U.C. Davis and a M.S. in biology from C.S.U. Chico, where he researched the interaction of riparian tree roots with soil types. Mr. Efseaff has broad experience working for natural resource agencies, consulting firms, and research institutions. He has developed sampling programs, prepared ecological risk assessments, conducted botanical surveys and constructed plant designs based on soil types.

Mary Ellen Morris – Controller

Mrs. Morris has 13 years of practical experience in accounting work for financial service, agribusiness and healthcare companies. She obtained her B.S. in Business Administration from Ohio State University and her Masters in Business Administration from the University of Laverne.

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Sacramento River Partners
Attn: John Carlon, President
539 Flume Street
Chico, CA 95928

Re: California Grant Statement

Dear Mr. Carlon:

As you requested, I have reviewed the Sacramento River Partners federal and state non-profit status, corporate bylaws, and Board Resolution 4-03, granting authority for Sacramento River Partners to accept/enter into a grant agreement with the State of California concerning the Vierra Flood Protection Corridor Program. Based on my review of the above listed items, it is my opinion that Sacramento River Partners is in compliance will all relevant federal and state non-profit rules and regulations such as to allow it to contract with the State of California and/or the federal government, and to enter into such grant agreements with such entities.

Should you have any further questions, please do not hesitate to contact me at your convenience.

Sincerely yours,

David M. Howard